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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,298	12/06/2001	Daniel Tapson	450110-03717	2646

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EXAMINER

BHATNAGAR, ANAND P

ART UNIT PAPER NUMBER

2623

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/006,298

Applicant(s)

TAPSON, DANIEL

Examiner

Anand Bhatnagar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18 and 21-30 is/are rejected.
- 7) ☒ Claim(s) 15-17, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/06/01 & 09/18/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claims 18-20 are objected to because of the following informalities: The dependency of claim 18 is improper because it is dependent upon itself. Appropriate correction is required. Examiner will address these claims as best understood.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14, 18, 21-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Cox et al. (U.S. patent 5,930,369).

Regarding claim 1: Cox et al. discloses an apparatus comprising:

a transformer for transforming transform domain data into spatial domain data (fig. 7 elements 52-58 and col. 14 lines 1-9, wherein the image data, 52, and the watermark image data, 56, are transformed into the spatial domain by the transformers 54 and 58, respectively. The image data and the watermark image data are read as the transform domain data because this is data which is going to be transformed); and

a combiner for receiving material and combining said spatial domain data with said material to form data embedded material (fig. 7 element 60 and col. 14 lines 8-11, wherein the spatially transformed image and watermark image data are combined by the combiner, 60).

Regarding claim 2: The apparatus wherein said transformer receives said transform domain data and transforms said transform domain data into spatial domain data (fig. 7 elements 52-58, see claim 1).

Regarding claim 3: The apparatus wherein the transform domain data is watermarking data (fig. 7 element 56, see claim 1).

Regarding claim 4: The apparatus wherein said material is one or more of audio material and video material (col. 5 lines 48-50).

Regarding claim 5: The apparatus wherein said material is data material (col. 1 lines 13-16 and col. 5 lines 48-50).

Regarding claim 6: The apparatus wherein said transform domain data comprises a Pseudo Random Symbol Stream modulated by information to embed in the material (col. 6 lines 28-32, wherein the watermark is random and spread throughout the image. This is read as Pseudo Random Symbol Stream).

Regarding claim 7: The apparatus wherein said data comprises a Universal Material Identifier (UMID) (col. 5 lines 45-50, wherein the watermark contains a unique identifier which is read as a UMID).

Regarding claim 8: The apparatus wherein said material and said spatial domain data both comprise a digital bitmap. Cox teaches to place a digital

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watermark in an image but does not teach to create a digital bitmap to embed a watermark. Creating a digital bitmap for watermarking is well known in the art in order to know where to place a specific size watermark and the best location to place it in. Examiner takes OFFICIAL NOTICE.

Regarding claim 9: The apparatus wherein said transform domain data comprises a digital bitmap. See claim 8.

Regarding claim 10: The apparatus wherein said transform domain data comprises wavelet coefficients and said transformer is an inverse wavelet transformer (col. 7 lines 38-44, wherein a wavelet or DCT transform can be performed.).

Regarding claim 11. The apparatus wherein said wavelet coefficients comprises information encoded in coefficients in at least two bands in at least one level (col. 6 lines 26-38, wherein the watermark is spread throughout the image. Spreading the watermark throughout the image results in different and/or the same regions of the image data may contain a watermark depending on the features of the image).

Regarding claim 12. The apparatus wherein said transform domain data comprises DCT coefficients and said transformer is an inverse DCT transformer. See claim 10.

Regarding claim 13: The apparatus wherein said combiner arithmetically combines said material and said spatial domain data (col. 9 lines 45-50 and col. 14 lines 7-10, wherein the watermark is arithmetically combined).

Regarding claims 14 and 18: The apparatus comprising:

a strength adapter for adapting the strength of said spatial domain data in dependence on said material (col. 9 lines 60-67 and col. 10 lines 1-15 wherein the scaling parameter, read as "strength adapter," alters the watermark values which is based on the image data, read as "material"),

wherein said combiner arithmetically combines said material and said strength adapted spatial domain data (fig. 7 element 60).

Regarding claim 21: See claim 1.

Regarding claim 22: See claim 1.

Regarding claim 23: See claim 13.

Regarding claim 24: It is rejected for the combination of reasons of claims 13 and 14.

Regarding claim 25: See claim 14.

Regarding claim 26: See claim 14.

Regarding claim 27: See claim 3.

Regarding claim 28: See claim 4.

Regarding claim 29: See claim 5.

Regarding claim 30: A computer program product comprising software code for performing the steps when said product is run on a computer (col. 13 lines 62-65 wherein this is electronic system, i.e. a computer or a processor performing the steps.

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Allowable Subject Matter

3. Claims 15-17, 19, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Manjunath et al. (U.S. patent 6,332,030) for transforming image data using DWT and DCT for watermarking.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (703) 306-5914, whose supervisor is Amelia Au whose number is 703-308-6604, group fax is 703-872-9306, and Tech center 2600 customer service office number is 703-306-0377.

AB

Anand Bhatnagar

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November 14, 2004


SAMIR AHMED
PRIMARY EXAMINER